

**REMARKS**

Claims 34-37 are pending in this application. As proposed above, Claims 25 - 33 have been cancelled to expedite the prosecution. Claim 34 has been amended to more clearly define the subject matter of the present invention. Claims 36 and 37 have been newly added.

In the office action, previously pending claims 25-35 have been rejected by the Examiner under Section 102(b) or 103(a). Claims 25-33 are cancelled in this amendment, thereby rendering the rejections moot. Currently pending claims 34-37 are patentable for the reasons stated as follows.

The present invention has been accomplished on the basis of the finding that, even if an article such as an optical element is rinsed by oxygen or ozone, there is a possibility that any contaminants such as organic matters are thereafter deposited again on the article to contaminate it. In accordance with the present invention as now defined in amended Claim 34, to avoid these inconveniences, there is at least “a third step for irradiating the article with ultraviolet rays from a light source disposed inside the first container but outside the second container; and a fourth step for introducing a nitrogen gas into the second container and stopping introduction of the oxygen gas or ozone gas.” This ensures that nitrogen is attracted to non-bond hands on the surface of the article, by which re-contamination of the article by organic substances can be avoided effectively.

As compared therewith, Mukai (USP 5,120,394) cited under Sections 102(b) and 103(a) rejections does not at all teach the subject matter of our Claim 34.

Mukai shows that: an article is placed inside an inner container; rinsing gases of  $\text{Si}_2\text{F}_6$ ,  $\text{SiH}_6$  and  $\text{N}_2$  are supplied into the inner container; a light source for emitting ultraviolet

rays is disposed outside the inner container; and the article accommodated in the inner container is rinsed by irradiation with ultraviolet rays.

However, it should be noted that in Mukai, the N<sub>2</sub> gas is supplied before irradiating the article with ultraviolet rays. Furthermore, in Mukai document N<sub>2</sub> gas is not supplied in association with the stop of supply of oxygen or ozone as in the present invention. Clearly this means that Mukai is totally irrelevant as to how to avoid re-contamination of the article after it is irradiated with ultraviolet rays.

The present invention concerns, as discussed hereinbefore, how to avoid re-contamination of the article after it is rinsed by oxygen or ozone, and our Claim 34 recites one best way to achieve it. In this respect, Mukai is completely silent as to the subject matter of our Claim 34 discussed above. We believe therefore that Claim 34 is patentably distinguished over Mukai document.

Kamiya (USP 4,989,031) cited under Section 103(a), shows that: a second container (II) is provided inside a first container (I), and a wafer is placed inside the second container; a light source for emitting ultraviolet rays is disposed outside the second container (II); the wafer placed inside the second container is rinsed by irradiation with ultraviolet rays; and a hole is formed between the first and second containers and the pressure of the first container is made higher than that of the second container.

However, similarly to Mukai, Kamiya is completely silent as to stopping the supply of oxygen or ozone and, in place, supplying nitrogen. There is nothing in Kamiya that teach or suggest the subject matter of our Claim 34, ensuring that nitrogen is attracted to non-bond hands on the surface of the article, by which re-contamination of the article by adhesion of

organic substances can be avoided effectively.

It is clear from the above that, even if Kamiya is considered in combination with Mukai, the subject matter of Claim 34 is patentably distinguished over these documents.

Similarly, Shiramizu et al (USP 6,277,767) is irrelevant to the subject matter of Claim 34.

With regard to Aoki (USP 6,571,057), it shows that: a light source (20) for emitting ultraviolet rays is disposed inside a first container (10); an article (w) is accommodated in a second container (21) and is rinsed by ultraviolet rays; supplying means (55) supplies a rinsing gas (oxygen) into the second container during irradiation with ultraviolet rays; and exhaust means (56) discharges the gas from the second container.

However, similarly to Kamiya and Mukai discussed above, Aoki is completely silent as to stopping the supply of oxygen or ozone and, in place, supplying nitrogen. There is nothing in this document that may teach or suggest the subject matter of our Claim 34, ensuring that nitrogen is attracted to non-bond hands on the surface of the article, by which re-contamination of the article by adhesion of organic substances can be avoided effectively.

Matsumoto is similarly irrelevant to the present invention.

We believe therefore that Claim 34 is patentably distinguished over Aoki and Matsumoto even if they are considered in combination.

Claims 35-37 are similarly patentably distinguished over the prior art references of record.

We believe therefore that all the claims now presented in the subject application are

clearly and unobviously distinguished over the prior art of record, and that the subject application will be in condition for allowance.

### CONCLUSION

Based on the foregoing amendments and remarks, Applicants respectfully request reconsideration and withdrawal of the rejection of claims and allowance of this application.

### AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. **13-4500**, Order No. 1232-4819. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. **13-4500**, Order No. 1232-4819. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

Respectfully submitted,  
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By:



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